

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 10/532,275

Examiner: Christopher S. Bobish

Applicant/Appellant: Mark Christopher Hope

Art Unit: 3746

Title: IMPROVEMENTS IN DRY PUMPS

Confirmation No.: 8421

Filed: September 28, 2005

Atty. Docket No.: M02B156

Commissioner for Patents
MAIL STOP ****REPLY BRIEF - PATENTS****
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REPLY BRIEF

Dear Sir/Madam:

In response to the Examiner's Answer of May 3, 2010, Appellant respectfully submits herewith a Reply Brief in the above-referenced matter under 37 CFR §41.41.

I. STATUS OF CLAIMS

Claims 1-16, 18, 19, 23 and 24 are pending in the application, in which claims 1-5, 18, 19, 23 and 24 have been withdrawn. Claims 17 and 20-22 have been cancelled. Claim 15 is allowed. Claims 6-14 and 16 stand rejected by the Examiner, and are the claims on appeal.

II. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

- A. Whether Examiner errs in rejecting claims 6 and 16 under 35 USC 102(b) as being anticipated by US Patent No. 5,691,291 to Sakagami et al. (hereinafter referred to as “Sakagami”)
- B. Whether rejections to claims 7-14 under 35 USC 103(a) over Sakagami should be withdrawn, at least, for their dependence on claim 6.

III. ARGUMENT

A. Appellant maintains that Sakagami fails to teach “monitoring the temperature of the pumping mechanism after cessation of operation.”

Examiner asserts “the flow chart of FIG. 22 appears to show a monitoring of a pump temperature when the pump is stopped and before the pump is started.” *See, Examiner’s Answer, page 7, lines 4-6.* It appears that Examiner equates the rotation of motor to an “operation” of pump *See, Examiner’s Answer, page 6 line 14 – page 7 line 4.*

It is Appellant’s contention that the term “operation” in Sakagami refers to a sequence of steps for initiating a vacuum pump, and the “temperature monitoring” step is part of the pump initiation process. “When the operation of the turbo vacuum pump is initiated, a command to heat the stator is outputted at Sept s41 from the heating means 7.” *See, col. 11, lines 17-20.* In spite of Examiner’s asserted definition of “operation”, it is undeniable that in Sakagami the heating step is part of a pump initiation process.

The claimed invention monitors the temperature of the pumping mechanism after cessation of operation, and performs intermittent pump rotation while the pump remains hot due to the heat generated when it was in operation. One advantage of the claimed invention is that no separate heater is needed for proposes of facilitating the intermittent motion. Such advantage is significant. As shown in FIG. 21 of Sakagami, it requires a heater controller 7, and a heater (not shown, but required in pump 2) in order to heat the stator from a cold state after the pump initiation process begins.

B. Appellant maintains that Sakagami fails to teach “initiating operation of the pumping mechanism... until a predefined time limit has passed.”

Examiner, citing col. 12 lines 1-10 and col. 10 lines 1-13 of Sakagami, asserts that Sakagami teaches initiating operation of the pumping mechanism until a predefined time limit has passed. *See, Examiner’s Answer, page 7, lines 11-16.* However, Appellant respectfully disagrees.

Sakagami provides: “At step s93, an abnormality is detected from the relation between the RPM and the acceleration time. If the acceleration is judged to be abnormal, the motor is stopped at Step s95, and the stator is heated at Step s96.” *See, col. 12 lines 1-10.* Appellant respectfully submits that “abnormality of acceleration” is different from and cannot be compared with “initiating operation of the pumping mechanism until a predefined time limit has passed.” Sakagami uses an abnormality of acceleration as a signal to initiate a heating step in a pump initiation process, whereas the claimed invention uses a predefined time limit to end a pump cessation process. An abnormality of acceleration may or may not occur in any given time period. The claimed invention does not respond to whether or not the abnormality occurs in the predefined time period. It is Appellant’s contention that Sakagami does not teach the claimed invention merely because it mentions the term “acceleration time” in its disclosure.

C. Conclusion

Appellant respectfully submits that the Examiner is incorrect in his rejection of the pending claims, and that all the pending claims are drawn to a novel subject matter, patentably distinguishable over the prior art of record. Accordingly, Appellant respectfully requests that the Appeal be granted and the Examiner reversed.

Respectfully submitted,

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